

less than 6 months ; 3 times, 6 months ; 6 times, 1 year ; 4 times, 2 yrs. ; once, 5 yrs. ; once, 6 yrs. In 4 cases of a third relapse, the interval between the 3d and 4th attack was, once, 6 months ; once, 1 yr. ; twice, 2 yrs. In three cases of a 4th relapse, the interval between the 4th and 5th attack was, once, less than 6 months ; once, 6 months ; once, 1 year. *Intervals after fright* : Chorea began immediately after fright, in 9 females and 1 male ; 1 day after, in 3 females ; 2 days after, in 1 female ; 1 week after, in 1 female and 1 male ; 2 weeks after, in 2 females ; 3 weeks after, in 1 female ; 1 month after, in 2 females. *Relapse and fright* occurred in 25 cases ; fright and no relapse, in 42 ; relapse and no fright, in 41. *Relapse and rheumatism*, in 19 cases ; rheumatism and no relapse, 45 ; relapse and no rheumatism, 45. Additional statistics are given, comparing the duration of the disease with age, fright, rheumatism, and heart-disease. The author has not attempted in his paper to draw conclusions from the facts.

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VARIATIONS IN THE RESISTANCE OF THE HUMAN BODY TO THE GALVANIC CURRENT IN HEALTH AND DISEASE.—A. Estore, (*Arch. de Neurol.*, vol. iv, No. 11,) while studying the physiological action of continued currents, observed that considerable variations occurred in the amount of resistance encountered whilst traversing certain tissues, not only in different subjects but in the same one at different times, a fact already observed by Vigouroux. Estore's method of testing was as follows : The positive pole was placed over the sternum, and the negative over some part, (uniformly the same,) of the forearm ; a current sufficiently feeble to be borne for some time (say ten elements) was then passed through. The precise time of closing the circuit was noted, and the exact number of divisions traversed by the galvanometer needle in a minute was observed, until it remained permanently at rest ; the maximum of intensity was reached, and the examination was concluded. It was observed that in two individuals subjected to the action of the same current, the resistance may vary in two ways. Ordinarily the maximum of deviation is different—high for one and less so for the other, no matter how long the current is applied. Less frequently the needle arrives at the same maximum, but in different periods of time ; being rapidly displaced in the one case, and less so in the other. These conditions—the galvanometer's deviations on the one hand and the time on the other—have aided in producing curves by means of which the results of different examinations may be easily compared. In the examination of hysterical hemi-anæsthetic subjects it was no longer a question of comparing different individuals ; the two sides of a patient were to be examined. The first condition to fulfill was to localize the current to that half of the body to be experimented upon ; its influence was not to be felt on the opposite side, as, otherwise, its resistance would have been diminished if the current had been

applied to it in turn. To obtain this result, the positive pole was placed under the axilla instead of on the sternum, and the negative pole fixed upon the corresponding forearm by a circular band. The same electrodes were employed on the right and on the left, over points exactly symmetrical. They presented a plane surface of small extent, so that the contact with the skin might be at its best ; the greatest precautions were taken that the pressure should be equal on both sides. Five hysterical or hystero-epileptic subjects, all having hemianæsthesia, were successively examined. The sound side was first electrized, and then the affected one ; the first side was then gone over, and then the other, and this continued until the maximum was reached with certainty and rapidity. The first two patients could be examined but once ; the examination confirmed Vigouroux's opinion, that in hysterical patients affected with hemianæsthesia there is less power of conduction than on the sound side. The third patient was observed twice on account of the occurrence of a transfer ; the hemianæsthesia, primarily on the left, passed to the right. The increase of resistance also changed sides. In the fourth patient, an active hyperæsthesia having succeeded a complete anæsthesia, we saw, on the same side, the resistance, at first greater, subsequently become less than that of the other side. Finally, the same conductivity was observed on both sides of the last patient, whose sensibility was hardly less on the left side.—*Alienist and Neurologist*, April, 1883.

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SUGGESTIONS AS TO THE ETIOLOGY OF SOME OF THE SO-CALLED SYSTEM-DISEASES OF THE SPINAL CORD.—Dr. H. Donkin, in an article under the above title (*Brain*, Jan., 1883), says : "The post-mortem study of such cases of spinal-cord disease as end in death, and can be thoroughly examined, has at present given us but little direct help toward tracing their causation from the beginning. When we thus examine the body the mischief is already wrought ; destructive lesions at most are demonstrated to us, though we may be led by a kind of natural inference to suppose some change in the cord, antecedent to the symptoms and to the structural lesion before our eyes.

"But in the face of these facts, and though the morbid anatomist has made no general claim to teach us any thing regarding the etiology of the diseases to which we refer, it would seem that many are led to regard too exclusively the lesion found in the cord as the primary source of the malady in question, and so incidentally to limit the field of inquiry as to how these special diseases may be brought about. But little attention is paid to the possible etiological antecedence of peripheral disturbance, or what may be called abnormal function, which by its continuance may set up the ultimate change in the structure of the cord, entailing all the morbid symptoms of the established disease."

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